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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
CHAWAN, VIJAY B	

ART UNIT	PAPER NUMBER
2626	

DATE MAILED: 06/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/621,619	SCHERF ET AL.	
	Examin r	Art Unit	
	Vijay B. Chawan	2626	

-- The MAILING DATE of this communication appears on the c ver sheet with the corresp ndenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 April 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disp sition of Claims

4)☒ Claim(s) *1-46* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-46* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 101

1. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

2. Claims 1-46 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 1-46 define a non-statutory process because it merely manipulates an abstract idea (mathematical algorithm) without a claimed limitation to a practical application. The disclosed invention has a practical application in the technological arts (e.g method of searching for a match in a database of a plurality of records); however, the claimed process, a series of steps to be performed on a computer, simply manipulates an abstract idea without a claimed limitation to the practical application and does not have any post or pre computer process activity.

Applicant should note, however, that claims directed to a computer implemented method stored on a computer readable medium with executable instructions to perform searching of a database for audio files, would be considered to be statutory subject matter.

For example, the requirement of the measurements of physical objects or activities to be transformed outside of the computer into computer data (In re Gelnovatch, 595 F.2d 32, 41 n.7, 201 USPQ 136, 145 n.7 (CCPA 1979) (data- gathering step did not measure physical phenomenon); Arrhythmia, 958 F.2d at 1056, 22 USPQ2d at 1036), where the data comprises signals corresponding to physical objects or activities external to the computer system, and where the process causes a physical transformation of the signals which are intangible representations of the physical objects or activities. Schrader, 22 F.3d at 294, 30 USPQ2d at 1459 citing with approval Arrhythmia, 958 F.2d at 1058-59, 22 USPQ2d at 1037-38; Abele, 684 F.2d at 909, 214 USPQ at 688; In re Taner, 681 F.2d 787, 790, 214 USPQ 678, 681 (CCPA 1982).

Examples of this type of claimed statutory process include the following:

- A method of using a computer processor to analyze electrical signals and data representative of human cardiac activity by converting the signals to time segments, applying the time segments in reverse order to a high pass filter means, using the computer processor to determine the amplitude of the high pass filter's output, and using the computer processor to compare the value to a predetermined value. In this example the data is an intangible representation of physical activity, i.e., human cardiac activity. The transformation occurs when heart activity is measured and an electrical signal is produced. This process has real world value in predicting vulnerability to ventricular tachycardia immediately after a heart attack.

- A method of using a computer processor to receive data representing Computerized Axial Tomography ("CAT") scan images of a patient, performing a calculation to determine the difference between a local value at a data point and an average value of the data in a region surrounding the point, and displaying the difference as a gray scale for each point in the image, and displaying the resulting image. In this example the data is an intangible representation of a physical object, i.e., portions of the anatomy of a patient. The transformation occurs when the condition of the human body is measured with X-rays and the X-rays are converted into electrical digital signals that represent the condition of the human body. The real world value of the invention lies in creating a new CAT scan image of body tissue without the presence of bones.

- A method of using a computer processor to conduct seismic exploration, by imparting spherical seismic energy waves into the earth from a seismic source, generating a plurality of reflected signals in response to the seismic energy waves at a set of receiver positions in an array, and summing the reflection signals to produce a signal simulating the reflection response of the earth to the seismic energy. In this example, the electrical signals processed by the computer represent reflected seismic energy. The transformation occurs by converting the spherical seismic energy waves into electrical signals which provide a geophysical representation of formations below the earth's surface. Geophysical exploration of formations below the surface of the earth has real world value.

Examples of claimed processes that independently limit the claimed invention to safe harbor include:

- a method of conducting seismic exploration which requires generating and manipulating signals from seismic energy waves before "summing" the values represented by the signals (Taner, 681 F.2d at 788, 214 USPQ at 679); and

- a method of displaying X-ray attenuation data as a signed gray scale signal in a "field" using a particular algorithm, where the antecedent steps require generating the data using a particular machine (e.g., a computer tomography scanner). Abele, 684 F.2d at 908, 214 USPQ at 687 ("The specification indicates that such attenuation data is available only when an X-ray beam is produced by a CAT scanner, passed through an object, and detected upon its exit. Only after these steps have been completed is the algorithm performed, and the resultant modified data displayed in the required format.").

Examples of claimed processes that do not limit the claimed invention to pre-computing safe harbor include:

- "perturbing" the values of a set of process inputs, where the subject matter "perturbed" was a number and the act of "perturbing" consists of substituting the numerical values of variables (Gelnovatch, 595 F.2d at 41 n.7, 201 USPQ at 145 n.7 ("Appellants' claimed step of perturbing the values of a set of process inputs (step 3), in addition to being a mathematical operation, appears to be a data-gathering step of the type we have held insufficient to change a nonstatutory method of calculation into a statutory process.... In this instance, the perturbed process inputs are not even

measured values of physical phenomena, but are instead derived by numerically changing the values in the previous set of process inputs.")); and, selecting a set of arbitrary measurement point values (Sarkar, 588 F.2d at 1331, 200 USPQ at 135). If a claim does not clearly fall into one or both of the safe harbors, the claim may still be statutory if it is limited to a practical application in the technological arts.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

4. Claims 1-3, 11, 19-22, 25-33, and 39 rejected under 35 U.S.C. 102(a) as being anticipated by Foote ("Content-Based Retrieval of Music and Audio", Proceedings of the SPIE on Multimedia Storage and Archiving Storage II, Dallas Texas, November 3, 1997, pages 138-147).

As per claim 1, Foote teaches a method of searching for a match in a database of a plurality of records, where the records in the database correspond to files, comprising:

generating sample values for at least one portion of at least on selected file (section 3, tree based template generation); and,

determining at least one matching record in the database for the at least one selected file based on the sample values and an indication of an amount of data in the at least one selected file (section 3, tree based template generation).

As per claim 2, Foote teaches a method as recited in claim 1, wherein the files may be used to play back at least one of audio and video, wherein said method further comprises calculating approximate playback times for the files represented by the records in the database and for at least one selected file, and wherein said determining is based on the approximate play back times (section 3, tree based template generation, section 4).

As per claim 3, Foote teaches a method of searching for a match in a database of a plurality of records, where the records in the database correspond to recordings having at least one track comprising:

generating sample values for at least one segment of a selected recording (section 3, tree based template generation);

calculating an approximate length of each track of each recording represented in the database and of the selected recording (section 3, tree based template generation); and,

determining at least one matching record in the database for the selected recording based on the sample values and the number and length of tracks of the recordings represented in the database and the selected recording (section 3, tree based template generation).

As per claim 11, Foote teaches the method as recited in claim 3, further comprising receiving a query to search for a match between the selected recording and the records in the database, the query including the number of tracks and the length information for the selected recording (section 3, tree based template generation).

As per claim 19, Foote teaches a method of searching for a match in a database of a plurality of records, where the records in the database correspond to files of sampled digital data, comprising:

generating sample values for at least one portion of at least one selected file output to a user at a first location by user equipment (section 3, tree based template generation);

generating a query based on the sample values, by the user equipment (section 3, tree based template generation); and,

sending the query from the user equipment to a server at a second location where the database is stored, to search for at least one matching record (section 3, tree based template generation).

As per claim 20, Foote teaches a method as recited in claim 19, further comprising sending from the server to the user equipment, additional information stored in the at least one approximately matching record and not included in the at least one selected file (section 3, tree based template generation).

As per claim 21, Foote teaches a database system, comprising:

a storage unit storing a database of records including existing sample values for recordings corresponding to the records (section 3, tree based template generation); and,

a processing unit, coupled to said storage unit, executing instructions that generate identifying sample values for a selected recording and determine at least one matching record in the database for the selected recording based on an indication of play back time of the selected recording and comparison of the identifying sample values with the existing sample values in the database (section 3, tree based template generation).

As per claim 22, Foote teaches a database system, comprising:

a storage unit storing a database of records including existing sample values for recordings corresponding to the records and information indicating length and number of identified segments of the recordings (section 3, tree based template generation); and,

a processing unit, coupled to said storage unit, executing instructions that generate identifying sample values and approximate length information for a selected recording and determine at least one matching record in the database for the selected recording based on a comparison of the identifying sample values with the existing sample values in the database, and the approximate length information and a number of identified segments in the selected recording and the recordings corresponding to the records in the database (section 3, tree based template generation).

As per claim 25, Foote teaches a database system comprising:

a storage unit storing a database of records including existing sample values for recordings corresponding to the records (section 3, tree based template generation);

a communication unit, coupled to said storage unit, to receive a query to search for a match between a selected recording and the records in the database, the query including the number of segments and the length information for the selected recording (section 3, tree based template generation); and,

a processing unit, coupled to said storage unit, executing instructions that generate identifying sample values for a selected recording and determine at least one matching record in the database for the selected recording by comparing the identifying sample values with the existing sample values in the database (section 3, tree based template generation).

As per claim 26, Foote teaches a database system as recited in claim 25, wherein the recordings corresponding to the records in the database and the selected recording each contain at least an audio portion and the number of segments are the number of tracks in the audio portion (section 3, tree based template generation).

As per claim 27, Foote teaches a database system as recited in claim 26, wherein the recordings are stored on removable storage media possessed by the user (section 3, tree based template generation).

As per claim 28, Foote teaches a database system as recited in claim 26, wherein the recordings are digital files stored on mass storage accessible by a listener of the selected recording (section 3, tree based template generation).

As per claim 29, Foote teaches the database system of claim 25, wherein said processing unit, storage unit and communication unit are at a first location, and wherein said database system further comprises, equipment possessed by a user at a second location, remote from the first location, to generate the query and play the selected recording, and a communication network coupling said equipment and said communication unit at least for sufficient time to send the query from said equipment to said communication unit (section 3, tree based template generation).

As per claim 30, Foote teaches the database system of claim 30, wherein said communication unit sends to the equipment via said communication network additional information stored in the at least one approximately matching record and not included in the selected recording (section 3, tree based template generation).

As per claim 31, Foote teaches at least one computer program stored on a computer-readable medium, embodying a method of searching for a match in a database of a plurality of records, where the records in the database correspond to files, comprising: generating sampled values for at least one segment of at least one selected file , and determining at least one matching record in the database for the at least one selected file based on the sampled values and an indication of an amount of data in the at least one selected file (section 3, tree based template generation).

As per claim 32, Foote teaches the at least one of the computer program of claim 31, wherein the files may be used to play back at least one of audio and video, wherein the method further comprises calculating approximate playback times for the files represented by the records in the database and for the at least one selected file, and

wherein said determining is also based on the approximate playback times (section 3, tree based template generation).

As per claim 33, Foote teaches at least one computer program stored on a computer readable medium, embodying a method of searching for a match in a database of a plurality of records, where the records in the database correspond to recordings having at least one track, comprising:

generating sample values for at least one segment of a selected recording (section 3, tree based template generation);

calculating an approximate length of each track of each recording represented in the database and of the selected recording (section 3, tree based template generation); and,

determining at least one matching record in the database for the selected recording based on the sample values and the number and length of tracks of the recordings represented in the database and the selected recording (section 3, tree based template generation).

As per claim 39, Foote teaches the at least one computer program of claim 33, further comprising receiving a query to search for a match between the selected recording and the records in the database, the query including the number of tracks and the length information for the selected recording (section 3, tree based template generation).

Response to Arguments

5. Applicant's arguments with respect to claims 1-46 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vijay B. Chawan whose telephone number is (571) 272-7601. The examiner can normally be reached on Monday Through Friday 6:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (571) 272-7602. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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